

REMARKS

I. New Matter -- 35 U.S.C. §132

The office action objects to the following element in claim 1 as new matter in contravention of 35 U.S.C. §132: *providing electronic data representing peptide libraries for selected organisms*. As noted at page 2 of the office action, the specification and the originally filed claims included a step of computationally generating overlapping peptide libraries for selected organisms. Claim 1 has been amended to revert to the format of claim 1 as originally filed:

- i) generating computationally overlapping peptide libraries...
- ii) sorting computational the peptides...obtained as above...

At page 13, lines 3-10, for example, the specification teaches the use of a peptide library creation program (PEPLIB) for creating a non-redundant peptide library of user specified window length "N" by sliding the window one amino acid residue at a time. For example, files may be downloaded and passed as input to the PERL program which creates unique peptides of a specified length.

II. Written Description -- 35 U.S.C. §112 ¶1

The office action rejects claims 1-9 based on the written description requirement in 35 U.S.C. §112 ¶1, concluding that steps (vii) and (viii) are new matter. Step (vii) features comparing proteins from pathogenic organisms with those of non-pathogenic organisms to select at least one conserved peptide non commonly conserved in both. That step has been deleted from the claim. In addition, step (viii) has been amended to delete the phrase "validating computationally... as a potential drug target sequences". The claim now features identifying conserved sequences not present in the host organism. Written description of this step as amended is found, for example, in Example 7 at page 16, which selects DNA gyrase as a protein target, based in part on the absence of that protein in humans.

III. Enablement -- 35 U.S.C. §112 ¶1

The office action further rejects claims 1-9 based on the enablement requirement of in 35 U.S.C. §112 ¶1, concluding that the specification does not provide support for a computational step of predicting or validating a peptide as a drug target. This aspect of step (viii) has been deleted. The office action (page 5, lines 16-20) concludes that the specification fails to “recite or teach any particular algorithm, matrix, etc. for performing a ‘computational validation’, nor are any parameters set forth for determining what is or is not considered ‘different’ when comparing peptides between a bacteria and a host...” Those skilled in the art at the time of the invention were well aware of computerized methods of comparing sequences, for example by BLAST programs. The invention should not be limited to one specific algorithm or set of parameters for this function. Applicants are aware of U.S. PTO policy tending to require that composition-of-matter claims featuring novel protein sequences include specific blast parameters. That policy applies where the sequence limitations are key structural definitions in the claim. Applicants point out that, in contrast, the instant claims feature methodology for analyzing sequence information, and the analysis can be readily applied to sequences (without limitation on the specific sequence being analyzed) using different algorithms and parameters. The application at hand is not directed to protein compositions and there is no PTO policy or case law that requires a limitation based on specific blast parameters. Those skilled in the art at the time of the invention would have had no difficulty practicing the claimed invention, given the extensive knowledge about the use of BLAST programs. See, for example, Altschul, Stephen F., et al., (1997) Nucleic Acids Res. 25:3389-3402.

IV. 35 U.S.C. §112 ¶2

Claim 5 has been amended to overcome the rejection under 35 U.S.C. §112 ¶2. The bracket was inadvertently used to indicate deletion or the word “invariant” in response to an earlier rejection.

Enclosed is a \$120 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

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Respectfully submitted,

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